

Add the following claims:

5. A method for transducing hematopoietic progenitor cells, comprising co-culturing human hematopoietic progenitor cells with isolated human mesenchymal stem cells, and transducing the human hematopoietic progenitor cells with exogenous genetic material in the presence of the isolated human mesenchymal stem cells.

#### REMARKS

In response to the Examiner's helpful suggestions and the rejections under 35 U.S.C. 112, Claim 1 has been cancelled and has been replaced with Claim 5.

Claims 1, 3, and 4 stand rejected under 35 U.S.C. 102(b) as being anticipated by Reese, et al.

Claims 1, 3, and 4 stand rejected under 35 U.S.C. 102(b) as being anticipated by Nolta, et al.

Claims 1-4 stand rejected under 35 U.S.C. 103 as being unpatentable over Reese, et al. in view of Gerson, et al.

Claims 1-4 stand rejected under 35 U.S.C. 103 as being unpatentable over Nolta, et al. in view of Gerson, et al.

These rejections are respectfully traversed.

The present invention, as defined broadly in Claim 5, is directed to a method for transducing hematopoietic progenitor cells. The method comprises co-culturing human hematopoietic progenitor cells with isolated human mesenchymal stem cells, and transducing the human hematopoietic progenitor cells with exogenous genetic material in the presence of the isolated human mesenchymal stem cells.

Reese and Nolta disclose the transduction of human CD34+ cells with retroviral vectors which include a mutated DNA methyltransferase gene (Reese), or a neomycin resistance gene or the human glucocerebrosidase gene (Nolta). The human CD34+ cells are transduced in the presence of irradiated stromal cells.

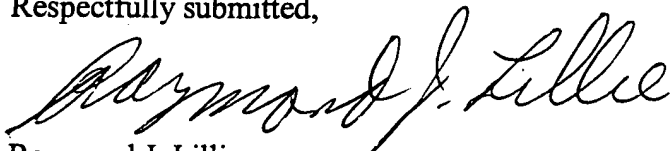
Reese and Nolta do not disclose or even remotely suggest to one of ordinary skill in the art the co-culturing of human hematopoietic progenitor cells with isolated human mesenchymal stem cells, and transducing the human hematopoietic progenitor cells with exogenous genetic material in the presence of the isolated human mesenchymal stem cells. Therefore, Reese and Nolta do not anticipate Applicant's method as claimed, nor do Reese and Nolta render Applicant's claimed method obvious to one of ordinary skill in the art. It is therefore respectfully requested that the rejections under 35 U.S.C. 102(b) be reconsidered and withdrawn.

Gerson discloses isolated human mesenchymal stem cells, which may be transfected with exogenous genetic material encoding a protein to be expressed. Gerson, however, does not disclose or even remotely suggest to one of ordinary skill in the art that human hematopoietic progenitor cells may be co-cultured with isolated human mesenchymal stem cells, and that the human hematopoietic progenitor cells may be transduced with exogenous genetic material in the presence of the isolated human mesenchymal stem cells. Therefore, Gerson, when combined with Reese or Nolta, at best would render it obvious to try to practice Applicant's claimed method of transducing human hematopoietic progenitor cells. Such a standard for obviousness is improper. (See Uniroyal, Inc. v. Rudkin-Wiley Corp., 5 U.S.P.Q.2d 1434 (C.A.F.C. 1988), at 1440; American Hospital Supply Corp. v. Travenol Laboratories, Inc., 223 U.S.P.Q. 577 (C.A.F.C. 1984), at 582; In Re Dow Chemical, 5 U.S.P.Q.2d 1529 (C.A.F.C. 1988), at 1531.) Therefore, the combination of Gerson with Reese or Nolta does not render Applicant's claimed

method obvious to one of ordinary skill in the art, and it is therefore respectfully requested that the rejections under 35 U.S.C. 103 be reconsidered and withdrawn.

For the above reasons and others, this application is in condition for allowance, and it is therefore respectfully requested that the rejections be reconsidered and withdrawn and a favorable action is hereby solicited.

Respectfully submitted,



Raymond J. Lillie

Registration No. 31,778

#79116 v1

I hereby certify this correspondence is deposited with the United States Patent and Trademark Office, first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231, on 9/14/2000 (Date of Deposit)

Raymond J. Lillie  
Name of applicant, Assignee, or Registered Representative

Raymond J. Lillie  
Signature

9/14/2000  
Date of Signature